```
* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page for STN Seminar Schedule - N. America
 NEWS  2  NOV 21   CAS patent coverage to include exemplified prophetic
                   substances identified in English-, French-, German-,
                   and Japanese-language basic patents from 2004-present
 NEWS  3  NOV 26   MARPAT enhanced with FSORT command
 NEWS  4  NOV 26   CHEMSAFE now available on STN Easy
 NEWS  5  NOV 26   Two new SET commands increase convenience of STN
                   searching
 NEWS  6  DEC 01   ChemPort single article sales feature unavailable
 NEWS  7  DEC 12   GBFULL now offers single source for full-text
                   coverage of complete UK patent families
 NEWS  8  DEC 17   Fifty-one pharmaceutical ingredients added to PS
 NEWS  9  JAN 06   The retention policy for unread STNmail messages
                   will change in 2009 for STN-Columbus and STN-Tokyo
 NEWS 10  JAN 07   WPIDS, WPINDEX, and WPIX enhanced Japanese Patent
                   Classification Data

 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

 NEWS HOURS     STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN     Welcome Banner and News Items
 NEWS IPC8      For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

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  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 08:58:07 ON 27 JAN 2009

=> file caplus
'CAPLUC' IS NOT A VALID FILE NAME
SESSION CONTINUES IN FILE 'HOME'
Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files
that are available.  If you have requested multiple files, you can
specify a corrected file name or you can enter "IGNORE" to continue
accessing the remaining file names entered.

=> NCV
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Some commands only work in certain files.  For example, the EXPAND
command can only be used to look at the index in a file which has an
index.  Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of
commands which can be used in this file.

=> help commands
Enter one of these commands at the arrow prompt (=>).

DELETE ------- Delete saved or current session items.
DISPLAY ------ Display saved or current session items.
FILE --------- Specify the search and display file.
```

HELP --------- For help on how to use the system.
INDEX -------- Specify the Index environment.
LOGOFF ------- End the online session.
NEWS --------- Display current news about the system.
ORDER -------- Order an original document or copy.
SAVE --------- Save an L-numbered query or answer set.
SET ---------- Set terminal and interaction options.
? ------------ The same as HELP.
Enter one of these commands at the arrow prompt (=>).

For more detailed information about a command, enter HELP followed by the command name at an arrow prompt.

Example: => HELP SEARCH

For information on entering multiple commands at a single arrow prompt, enter HELP COMMAND STACKING.

=> help command stacking
You can stack several commands at a single arrow prompt (=>) by separating the command steps with a semicolon. For example, a search for records containing two terms is followed by a display of the first two answers in the ALL format:

Example: => S IMMUNOASSAY AND RADIO?; D 1-2 ALL

Spaces around the semicolon are not critical. A maximum of 300 characters is permitted at a single arrow. (The maximum number of characters in a search statement is 256.)

=> S MCV
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> help search
The SEARCH command is used to execute a search in the current file.

To use this command, enter SEARCH and a query name or a logic expression. The system will create an L-number answer set containing the results of the search.

A logic expression (profile) consists of L-numbers, E-numbers, text or numeric terms and/or saved query names, joined by Boolean operators and/or by appropriate proximity operators or by numeric operators in numeric expressions.

The order of precedence for the execution of operators is (highest first): numeric operators; (W), (NOTW), (A), and (NOTA); (S) and (NOTS); (P) and (NOTP); (L) and (NOTL); AND and NOT; then OR. Parentheses (nesting) can be used to modify this order. For information on the use of operators, enter HELP OPERATORS at an arrow prompt (=>). Enter HELP NUMERIC for an explanation of how to use numeric terms in a search.

The search terms you choose must be appropriate for the file you are in, e.g., structures can be searched in the REGISTRY file but not in

the CAPLUS file. Generic structure files may be searched only with single structures, without logic operators or screen terms.

Ranges of L-numbers and/or E-numbers may be searched as if you had connected them with OR operators. For example, S E3-E6,E12,L2,L9-8 would be searched as if you had entered E3 OR E4 OR E5 OR E6 OR E12 OR L2 OR L9 OR L8.

To automatically add plurals for terms in the Basic Index or fields that comprise the Basic Index in a single search in an English language database, include PLURALS=ON in the command line, e.g., SEARCH HEDGE AND CLIPPER PLURALS=ON. For more information on searching plurals automatically, enter HELP SET PLURALS at an arrow prompt).

You may search a phrase in a field that contains single words and an appropriate operator, usually (W), will automatically be inserted between the words in the phrase.

Example:

```
   => SEARCH ACID RAIN AND POLLUTION
      752118 ACID
        5169 RAIN
        1214 ACID RAIN
                (ACID(W)RAIN)
       93061 POLLUTION
   L2   1214 ACID RAIN AND POLLUTION
```

If you do not wish to see how a phrase was actually searched, enter SET INTERPRET OFF at an arrow prompt before executing the search. For more information, enter HELP SET INTERPRET.

You may select terms from an answer set in one file and search these terms in the same or another field in the same or another file. For more information on this type of file crossover, enter HELP SMARTSELECT at an arrow prompt. For more information on other types of file crossover, enter HELP CROSSOVER in the file.

You may choose to have the SEARCH command automatically inserted into your input query. To do this, enter SET AUTOSEARCH ON at an arrow prompt. For more information, enter HELP SET AUTOSEARCH.

If a saved query appears in a search, the full name must be entered, including /Q, e.g., SEARCH L3 AND HEDGE/Q NOT SULFUR/Q.

Saved answer sets, L-number lists, and SDI profiles must have L-numbers to be used in the SEARCH command. First ACTIVATE the saved item. Then use the L-number, not the saved name, in the SEARCH command.

Searches can be done on a limited portion of the file. For an explanation, enter HELP SEARCH RANGE at an arrow prompt.

Search terms may be truncated. For information on truncation symbols, enter HELP TRUNCATION at an arrow prompt. To see what terms or symbols may need special care when used in a search, enter HELP RESERVED.

To have L-numbers assigned to intermediate postings in a SEARCH, enter

SEARCH STEPS. For more information, enter HELP SEARCH STEPS at an arrow prompt.

With fields for which a thesaurus file exists, search queries may be enriched with additional search terms such as Narrower Terms, Broader Terms, Related Terms, etc. For more information about using a thesaurus in searches, enter HELP THESAURUS at an arrow prompt in the desired file.

When SmartSelect L-numbers are searched, a new SmartSelect L-number can be created that contains those terms for which there were no postings. For more information, enter HELP SET AUDIT at an arrow prompt.

=> help thesaurus
HELP FOR 'THESAURUS' IS NOT AVAILABLE
For information about help messages available in all files, enter "HELP MESSAGES". For information about help messages available for the current file, enter "HELP DIRECTORY". For a list of commands, enter "HELP COMMANDS".

=> help commands
Enter one of these commands at the arrow prompt (=>).

DELETE ------- Delete saved or current session items.
DISPLAY ------ Display saved or current session items.
FILE --------- Specify the search and display file.
HELP --------- For help on how to use the system.
INDEX -------- Specify the Index environment.
LOGOFF ------- End the online session.
NEWS --------- Display current news about the system.
ORDER -------- Order an original document or copy.
SAVE --------- Save an L-numbered query or answer set.
SET ---------- Set terminal and interaction options.
? ------------ The same as HELP.
Enter one of these commands at the arrow prompt (=>).

For more detailed information about a command, enter HELP followed by the command name at an arrow prompt.

Example: => HELP SEARCH

For information on entering multiple commands at a single arrow prompt, enter HELP COMMAND STACKING.

=> file
ENTER A FILE NAME OR (HOME):caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.66	0.66

FILE 'CAPLUS' ENTERED AT 09:00:01 ON 27 JAN 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 27 Jan 2009 VOL 150 ISS 5
FILE LAST UPDATED: 26 Jan 2009 (20090126/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> HCV
         15295 HCV
            27 HCVS
L1       15299 HCV
                  (HCV OR HCVS)

=> L1 and NS3
          3283 NS3
L2         1896 L1 AND NS3

=> L2 and NS4
           814 NS4
L3          280 L2 AND NS4

=> L3 and NS5b
          1119 NS5B
L4          43 L3 AND NS5B

=> vector (1) L4
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'VECTOR (L) L4'
        193868 VECTOR
        127643 VECTORS
        265109 VECTOR
                  (VECTOR OR VECTORS)
L5          14 VECTOR (L) L4

=> adenovirus and L5
          29681 ADENOVIRUS
           4321 ADENOVIRUSES
          30502 ADENOVIRUS
                  (ADENOVIRUS OR ADENOVIRUSES)
L6           5 ADENOVIRUS AND L5

=> D L6 IBIB ABS 1-5

L6   ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2009 ACS on STN
```

ACCESSION NUMBER: 2008:1157516 CAPLUS
DOCUMENT NUMBER: 149:400310
TITLE: Compositions comprising the hepatitis C virus (**HCV**) polyprotein **NS3**/**NS4** and protein **NS5b**, recombinant expression and sequences thereof, and antiviral vaccine uses
INVENTOR(S): Inchauspe, Genevieve; Fournillier, Anne
PATENT ASSIGNEE(S): Transgene SA, Fr.
SOURCE: PCT Int. Appl., 103pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008113606	A1	20080925	WO 2008-EP2300	20080321
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 20070269460	A1	20071122	US 2007-723638	20070321
PRIORITY APPLN. INFO.:			US 2007-723638	A2 20070321
			FR 2003-6772	A 20030605
			WO 2004-FR50214	W 20040604
			US 2005-559431	A2 20051205

AB The invention relates to the use of a therapeutically effective amt. of a peptide compn. comprising a polyprotein **NS3**/**NS4** of the hepatitis C virus (**HCV**) as well as a polypeptide **NS5b** of the **HCV**, for the prepn. of a medicament for administration to a **HCV**-infected subject in the treatment of hepatitis C. The invention provides a compd. contg. a polyprotein **NS3**/**NS4** and a polypeptide **NS5b** of hepatitis C virus (**HCV**), which has an immunogenic and protective power superior to that obtained with a vaccine addnl. including the protein NS5a and/or other structural proteins of **HCV**. Said invention also relates to expression **vectors**, such as **adenovirus** and poxvirus **vectors**, encoding the polyprotein **NS3**/**NS4** and the polypeptide **NS5b**. Preclin. studies demonstrate that three sub-cutaneous injections of MVA **vector**-based NS34-**NS5B** construct at one week interval (weeks 1, 2 and 3) represent an optimized protocol to induce **HCV** specific IFNγ producing T cells and cytotoxic T lymphocytes. A recall injection performed several months after the first series (either at month 4 or month 6) was able to enhance both CD4+ and CD8+ T cell responses.
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
Full Text | Cited References
ACCESSION NUMBER: 2008:570045 CAPLUS
TITLE: A **vector**-based minigene vaccine approach results in

strong induction of T-cell responses specific of hepatitis C virus
AUTHOR(S): Martin, Perrine; Simon, Benjamin; Lone, Yu-Chun; Chatel, Laurence; Barry, Ronald; Inchauspe, Genevieve; Fournillier, Anne
CORPORATE SOURCE: Infectious Diseases Department, TRANSGENE SA, Lyon, 69364, Fr.
SOURCE: Vaccine (2008), 26(20), 2471-2481
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Summary: Multiepitope-based vaccines against hepatitis C virus (**HCV**) were designed in the form of three minigenes encompassing four domains of the **NS3**, **NS4** and **NS5B** proteins that contain multiple class I/II restricted epitopes. The polyEp-WT minigene encodes all four domains in fusion, the polyEp-C minigene encodes the same fusion but optimized for mammalian translation and the polyEp-E3 minigene has an addnl. endoplasmic reticulum targeting sequence. Whereas the minigenes vectorised by DNA were poorly immunogenic, **adenovirus** vectorization induced strong and broader IFNγ-ELISpot and CTL responses in HLA-A2 transgenic mice. In addn., polyEp-WT and polyEp-E3 responses were found cross-reactive in a recombinant Listeria-**NS3**-based surrogate challenge. This study illustrates the potency of vectorised minigenes in the field of **HCV** vaccine development.
REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | CAS Reference

ACCESSION NUMBER: 2007:1461700 CAPLUS
DOCUMENT NUMBER: 148:260241
TITLE: The Functional Evaluation of Dendritic Cell Vaccines Based on Different Hepatitis C Virus Nonstructural Genes
AUTHOR(S): Tian, Yuan; Zhang, Heng-Hui; Wei, Lai; Du, Shao-Cai; Chen, Hong-Song; Fei, Ran; Liu, Feng
CORPORATE SOURCE: Hepatology Institute, Peking University People's Hospital, Beijing, Peop. Rep. China
SOURCE: Viral Immunology (2007), 20(4), 553-561
CODEN: VIIMET; ISSN: 0882-8245
PUBLISHER: Mary Ann Liebert, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Hepatitis C virus (**HCV**) nonstructural (NS) genes are relatively conserved and play crit. roles in cellular immune responses against **HCV**. The aim of the study was to evaluate the immunogenicity of the different **HCV** NS genes through transduction of DCs and presentation to T cells. Monocyte-derived DCs from healthy donors were infected with the recombinant **adenovirus** (Ad) harboring **HCV NS3** (AdNS3), **NS4** (NS4A and NS4B; AdNS4), NS5 (NS5A and **NS5B**; AdNS5), **NS3**/**NS4** (AdNS3/**NS4**), and **NS4**/NS5 (AdNS4/NS5) genes, and then used to stimulate autologous lymphocytes in vitro. Antigen-specific cellular immune responses were detected by interferon-γ (IFN-γ), interleukin 4 (IL-4), and Granzyme B (GrB) enzyme-linked immunospot assays (ELISPOT). DCs expressing different **HCV** NS genes all induced pos. immune responses. Furthermore, DCs transfected with AdNS3/**NS4** were superior to DCs infected with AdNS3 or AdNS4 in inducing **HCV**-specific immunity. The same results were obtained when the authors compared DCs infected with

AdNS4/NS5 to AdNS4 or AdNS5. DCs transduced with **NS3**/**NS4** or **NS4**/NS5 had similar ability to elicit specific immune responses to **HCV**.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Cited References

ACCESSION NUMBER: 2007:1334675 CAPLUS
DOCUMENT NUMBER: 148:9402
TITLE: Compositions comprising the hepatitis C virus (**HCV**) polyprotein **NS3**/**NS4** and protein **NS5b**, recombinant expression and sequences thereof, and vaccine uses
INVENTOR(S): Inchauspe, Genevieve; Fournillier, Anne
PATENT ASSIGNEE(S): Transgene S.A., Fr.
SOURCE: U.S. Pat. Appl. Publ., 75 pp., Cont.-in-part of U.S. Ser. No. 559,431.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070269460	A1	20071122	US 2007-723638	20070321
FR 2855758	A1	20041210	FR 2003-6772	20030605
FR 2855758	B1	20050722		
WO 2004111082	A2	20041223	WO 2004-FR50214	20040604
WO 2004111082	A3	20050217		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 20060134065	A1	20060622	US 2005-559431	20051205
WO 2008113606	A1	20080925	WO 2008-EP2300	20080321

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

FR 2003-6772	A	20030605
WO 2004-FR50214	W	20040604
US 2005-559431	A2	20051205
US 2007-723638	A2	20070321

AB The invention provides a compd. contg. a polyprotein **NS3**/**NS4** and a polypeptide **NS5b** of hepatitis C virus (**HCV**), which has an immunogenic and protective power superior to that obtained with a vaccine addnl. including the protein NS5a and/or other structural proteins of **HCV**. Said invention also relates to expression **vectors**, such as **adenovirus** and poxvirus **vectors**, encoding the polyprotein **NS3**/**NS4** and the polypeptide **NS5b**. The inventive compd. can be used for a therapeutic application.

L6 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2002:908392 CAPLUS
DOCUMENT NUMBER: 138:13314
TITLE: Comparative vaccine studies in HLA-A2.1-transgenic mice reveal a clustered organization of epitopes presented in hepatitis C virus natural infection
AUTHOR(S): Himoudi, Nourredine; Abraham, Jean-Daniel; Fournillier, Anne; Lone, Yu Chun; Joubert, Aurelie; Op De Beeck, Anne; Freida, Delphinc; Lemonnier, Francois; Kieny, Marie Paule; Inchauspe, Genevieve
CORPORATE SOURCE: Unite Mixte CNRS-BioMerieux, UMR 2142, Ecole Normale Superieure, Lyon, 69364, Fr.
SOURCE: Journal of Virology (2002), 76(24), 12735-12746
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A polyepitopic CD8+-T-cell response is thought to be crit. for control of hepatitis C virus (**HCV**) infection. Using transgenic mice, we analyzed the immunogenicity and dominance of most known HLA-A2.1 epitopes presented during infection by using vaccines that carry the potential to enter clin. trials: peptides, DNA, and recombinant **adenoviruses**. The vaccines capacity to induce specific cytotoxic T lymphocytes and interferon gamma-producing cells revealed that immunogenic epitopes are clustered in specific antigens. For two key antigens, flanking regions were shown to greatly enhance the scope of epitope recognition, whereas a DNA-**adenovirus** prime-boost vaccination strategy augmented epitope immunogenicity, even that of subdominant ones. The present study reveals a clustered organization of **HCV** immunogenic HLA.A2.1 epitopes and strategies to modulate their dominance.

REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DNA vaccine
936298 DNA
20617 DNAS
939555 DNA
(DNA OR DNAS)
74153 VACCINE
74608 VACCINES
92059 VACCINE
(VACCINE OR VACCINES)
L7 6211 DNA VACCINE
(DNA(W)VACCINE)

=> L7 and L4
L8 2 L7 AND L4

```
=> plasmid and L4
        139820 PLASMID
         53793 PLASMIDS
        156869 PLASMID
                 (PLASMID OR PLASMIDS)
L9            9 PLASMID AND L4

=> D L8 IBIB ABS 1-2

L8   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2009 ACS on STN
```

Full Text | Citing References

```
ACCESSION NUMBER:         2008:1157516  CAPLUS
DOCUMENT NUMBER:          149:400310
TITLE:                    Compositions comprising the hepatitis C virus (HCV)
                          polyprotein NS3/NS4 and protein NS5b,
                          recombinant expression and sequences thereof, and
                          antiviral vaccine uses
INVENTOR(S):              Inchauspe, Genevieve; Fournillier, Anne
PATENT ASSIGNEE(S):       Transgene SA, Fr.
SOURCE:                   PCT Int. Appl., 103pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   3
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     WO 2008113606         A1    20080925    WO 2008-EP2300          20080321
         W:  AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
             CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,
             FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,
             KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
             ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
             PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM,
             TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
             IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
             TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
     US 20070269460        A1    20071122    US 2007-723638          20070321
PRIORITY APPLN. INFO.:                       US 2007-723638      A2  20070321
                                             FR 2003-6772        A   20030605
                                             WO 2004-FR50214     W   20040604
                                             US 2005-559431      A2  20051205
```

AB The invention relates to the use of a therapeutically effective amt. of a peptide compn. comprising a polyprotein **NS3**/**NS4** of the hepatitis C virus (**HCV**) as well as a polypeptide **NS5b** of the **HCV**, for the prepn. of a medicament for administration to a **HCV**-infected subject in the treatment of hepatitis C. The invention provides a compd. contg. a polyprotein **NS3**/**NS4** and a polypeptide **NS5b** of hepatitis C virus (**HCV**), which has an immunogenic and protective power superior to that obtained with a vaccine addnl. including the protein NS5a and/or other structural proteins of **HCV**. Said invention also relates to expression vectors, such as adenovirus and poxvirus vectors, encoding the polyprotein **NS3**/**NS4** and the polypeptide **NS5b**. Preclin. studies demonstrate that three sub-cutaneous injections of MVA vector-based NS34-**NS5B** construct at one week interval (weeks 1, 2 and 3) represent an optimized protocol to

induce **HCV** specific IFNγ producing T cells and cytotoxic T lymphocytes. A recall injection performed several months after the first series (either at month 4 or month 6) was able to enhance both CD4+ and CD8+ T cell responses.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | More References

ACCESSION NUMBER: 2007:1334675 CAPLUS
DOCUMENT NUMBER: 148:9402
TITLE: Compositions comprising the hepatitis C virus (**HCV**) polyprotein **NS3**/**NS4** and protein **NS5b**, recombinant expression and sequences thereof, and vaccine uses
INVENTOR(S): Inchauspe, Genevieve; Fournillier, Anne
PATENT ASSIGNEE(S): Transgene S.A., Fr.
SOURCE: U.S. Pat. Appl. Publ., 75 pp., Cont.-in-part of U.S. Ser. No. 559,431.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070269460	A1	20071122	US 2007-723638	20070321
FR 2855758	A1	20041210	FR 2003-6772	20030605
FR 2855758	B1	20050722		
WO 2004111082	A2	20041223	WO 2004-FR50214	20040604
WO 2004111082	A3	20050217		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 20060134065	A1	20060622	US 2005-559431	20051205
WO 2008113606	A1	20080925	WO 2008-EP2300	20080321

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:		
FR 2003-6772	A	20030605
WO 2004-FR50214	W	20040604

US 2005-559431	A2	20051205
US 2007-723638	A2	20070321

AB The invention provides a compd. contg. a polyprotein **NS3**/**NS4** and a polypeptide **NS5b** of hepatitis C virus (**HCV**), which has an immunogenic and protective power superior to that obtained with a vaccine addnl. including the protein NS5a and/or other structural proteins of **HCV**. Said invention also relates to expression vectors, such as adenovirus and poxvirus vectors, encoding the polyprotein **NS3**/**NS4** and the polypeptide **NS5b**. The inventive compd. can be used for a therapeutic application.

=> D L9 IBIB ABS 1-9

L9 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2008:1157516 CAPLUS
DOCUMENT NUMBER: 149:400310
TITLE: Compositions comprising the hepatitis C virus (**HCV**) polyprotein **NS3**/**NS4** and protein **NS5b**, recombinant expression and sequences thereof, and antiviral vaccine uses
INVENTOR(S): Inchauspe, Genevieve; Fournillier, Anne
PATENT ASSIGNEE(S): Transgene SA, Fr.
SOURCE: PCT Int. Appl., 103pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008113606	A1	20080925	WO 2008-EP2300	20080321
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 20070269460	A1	20071122	US 2007-723638	20070321

PRIORITY APPLN. INFO.:		
US 2007-723638	A2	20070321
FR 2003-6772	A	20030605
WO 2004-FR50214	W	20040604
US 2005-559431	A2	20051205

AB The invention relates to the use of a therapeutically effective amt. of a peptide compn. comprising a polyprotein **NS3**/**NS4** of the hepatitis C virus (**HCV**) as well as a polypeptide **NS5b** of the **HCV**, for the prepn. of a medicament for administration to a **HCV**-infected subject in the treatment of hepatitis C. The invention provides a compd. contg. a polyprotein **NS3**/**NS4** and a polypeptide **NS5b** of hepatitis C virus (**HCV**), which has an immunogenic and protective power superior to that obtained with a vaccine addnl. including the protein NS5a and/or other structural proteins of **HCV**. Said invention also relates to expression

vectors, such as adenovirus and poxvirus vectors, encoding the polyprotein **NS3**/**NS4** and the polypeptide **NS5b**. Preclin. studies demonstrate that three sub-cutaneous injections of MVA vector-based NS34-**NS5B** construct at one week interval (weeks 1, 2 and 3) represent an optimized protocol to induce **HCV** specific IFNγ producing T cells and cytotoxic T lymphocytes. A recall injection performed several months after the first series (either at month 4 or month 6) was able to enhance both CD4+ and CD8+ T cell responses.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Cited References

ACCESSION NUMBER: 2007:1334675 CAPLUS
DOCUMENT NUMBER: 148:9402
TITLE: Compositions comprising the hepatitis C virus (**HCV**) polyprotein **NS3**/**NS4** and protein **NS5b**, recombinant expression and sequences thereof, and vaccine uses
INVENTOR(S): Inchauspe, Genevieve; Fournillier, Anne
PATENT ASSIGNEE(S): Transgene S.A., Fr.
SOURCE: U.S. Pat. Appl. Publ., 75 pp., Cont.-in-part of U.S. Ser. No. 559,431.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070269460	A1	20071122	US 2007-723638	20070321
FR 2855758	A1	20041210	FR 2003-6772	20030605
FR 2855758	B1	20050722		
WO 2004111082	A2	20041223	WO 2004-FR50214	20040604
WO 2004111082	A3	20050217		

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US 20060134065	A1	20060622	US 2005-559431	20051205
WO 2008113606	A1	20080925	WO 2008-EP2300	20080321

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TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

FR 2003-6772	A	20030605
WO 2004-FR50214	W	20040604
US 2005-559431	A2	20051205
US 2007-723638	A2	20070321

AB The invention provides a compd. contg. a polyprotein **NS3**/**NS4** and a polypeptide **NS5b** of hepatitis C virus (**HCV**), which has an immunogenic and protective power superior to that obtained with a vaccine addnl. including the protein NS5a and/or other structural proteins of **HCV**. Said invention also relates to expression vectors, such as adenovirus and poxvirus vectors, encoding the polyprotein **NS3**/**NS4** and the polypeptide **NS5b**. The inventive compd. can be used for a therapeutic application.

L9 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2006:333454 CAPLUS
DOCUMENT NUMBER: 144:357638
TITLE: Application of a transgenic mouse model of hepatitis c virus (**HCV**) infection and identification of antiviral agent for **HCV** therapeutics
INVENTOR(S): Sallberg, Matti; Frelin, Lars
PATENT ASSIGNEE(S): Tripep AB, Swed.
SOURCE: PCT Int. Appl., 165 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006021896	A2	20060302	WO 2005-IB3736	20050826
WO 2006021896	A3	20060817		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

EP 1781690	A2	20070509	EP 2005-810181	20050826

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WO 2006109196	A2	20061019	WO 2006-IB1668	20060203
WO 2006109196	A3	20070315		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

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US 20080295185	A1	20081127	US 2008-660878		20080506
PRIORITY APPLN. INFO.:			US 2004-605030P	P	20040827
			US 2005-649975P	P	20050204
			WO 2005-IB3736	W	20050826
			US 2005-740362P	P	20051128

AB Disclosed herein is the discovery of novel **NS3**/4A compns. with enhanced expression abilities. Embodiments of the invention include codon optimized **NS3**/4A compns. and compns. with the Semliki forest virus replicon. Addnl. embodiments include transgenic organisms contg. these **NS3**/4A compns., methods of using these transgenic mice to screen and refine drugs, and the drugs refined by these methods. Addnl. embodiments include protease activity dependent mols. that can indicate the presence or absence of a protease inhibitor.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Cited References

ACCESSION NUMBER: 2005:303181 CAPLUS
DOCUMENT NUMBER: 142:372468
TITLE: **HCV** fusion proteins with modified **NS3** domains and uses thereof as immunogens
INVENTOR(S): Houghton, Michael
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 46 pp., Cont.-in-part of U.S. Ser. No. 721,479.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050074465	A1	20050407	US 2003-612884		20030702
US 6986892	B1	20060117	US 2000-721479		20001122
US 20060057164	A1	20060316	US 2005-195009		20050802
US 7449566	B2	20081111			
JP 2006265267	A	20061005	JP 2006-174595		20060623
PRIORITY APPLN. INFO.:			US 1999-167502P	P	19991124
			US 2000-721479	A2	20001122
			US 2002-393694P	P	20020702
			US 2002-394510P	P	20020708
			JP 2004-519849	A3	20030702

AB The disclosed invention provides hepatitis C virus (**HCV**) fusion proteins that include a mutated **NS3** protease domain, fused to at least one other **HCV** epitope derived from another region of the **HCV** polyprotein. The fusions can be used in stimulation of a cellular immune response to **HCV**, such as activating hepatitis C virus (**HCV**)-specific T cells, including CD4+ and CD8+ T cells. The method can be used in model systems to develop **HCV**-specific immunogenic compns., as well as to immunize a mammal against **HCV**. In expts. with Rhesus macaques, the immunization with **plasmid** DNA encoding an **NS3**(modified)NS4NS5aCore fusion protein led to activation of **HCV**-specific CD8-pos. T cells expressing interferon γ and proliferation of **HCV**-specific CD4-pos. T cells. Also

presented is the use of alphavirus replicon particles.

L9 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2004:392569 CAPLUS
DOCUMENT NUMBER: 140:390291
TITLE: Activation of **HCV**-specific T cells using fusion protein vaccines comprising **HCV NS3**, **NS4**, NS5a, and **NS5b** polypeptides
INVENTOR(S): Houghton, Michael; Coates, Steve; Selby, Mark; Paliard, Xavier
PATENT ASSIGNEE(S): Chiron Corporation, USA
SOURCE: PCT Int. Appl., 136 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004039950	A2	20040513	WO 2003-US33610	20031024
WO 2004039950	A3	20071122		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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CA 2505611	A1	20040513	CA 2003-2505611	20031024
AU 2003287188	A1	20040525	AU 2003-287188	20031024
EP 1576125	A2	20050921	EP 2003-781368	20031024
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PRIORITY APPLN. INFO.: US 2002-281341 A 20021025
WO 2003-US33610 W 20031024

AB The invention provides a method of activating hepatitis C virus (**HCV**)-specific T cells, including CD4+ and CD8+ T cells. **HCV**-specific T cells are activated using fusion protein vaccines comprising **HCV NS3**, **NS4**, NS5a, and **NS5b** polypeptides, polynucleotides encoding such fusion proteins, or polypeptide or polynucleotide compns. contg. the individual components of these fusions. The method can be used in model systems to develop **HCV**-specific immunogenic compns., as well as to immunize a mammal against **HCV**.

L9 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2002:908392 CAPLUS
DOCUMENT NUMBER: 138:13314
TITLE: Comparative vaccine studies in HLA-A2.1-transgenic mice reveal a clustered organization of epitopes presented in hepatitis C virus natural infection
AUTHOR(S): Himoudi, Nourredine; Abraham, Jean-Daniel;

Fournillier, Anne; Lone, Yu Chun; Joubert, Aurelie; Op De Beeck, Anne; Freida, Delphinc; Lemonnier, Francois; Kieny, Marie Paule; Inchauspe, Genevieve

CORPORATE SOURCE: Unite Mixte CNRS-BioMerieux, UMR 2142, Ecole Normale Superieure, Lyon, 69364, Fr.

SOURCE: Journal of Virology (2002), 76(24), 12735-12746
CODEN: JOVIAM; ISSN: 0022-538X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A polyepitopic CD8+-T-cell response is thought to be crit. for control of hepatitis C virus (**HCV**) infection. Using transgenic mice, we analyzed the immunogenicity and dominance of most known HLA-A2.1 epitopes presented during infection by using vaccines that carry the potential to enter clin. trials: peptides, DNA, and recombinant adenoviruses. The vaccines capacity to induce specific cytotoxic T lymphocytes and interferon gamma-producing cells revealed that immunogenic epitopes are clustered in specific antigens. For two key antigens, flanking regions were shown to greatly enhance the scope of epitope recognition, whereas a DNA-adenovirus prime-boost vaccination strategy augmented epitope immunogenicity, even that of subdominant ones. The present study reveals a clustered organization of **HCV** immunogenic HLA.A2.1 epitopes and strategies to modulate their dominance.

REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Links | References

ACCESSION NUMBER: 2002:716438 CAPLUS

DOCUMENT NUMBER: 137:227663

TITLE: Hepatitis C virus (**HCV**) cDNA-based hepatocyte cell culture system for synthesis of infectious **HCV**, and uses for antiviral screening

INVENTOR(S): Dasgupta, Asim; Koka, Prasad S.

PATENT ASSIGNEE(S): The Regents of the University of California, USA

SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002072776	A2	20020919	WO 2002-US7516	20020311
WO 2002072776	A3	20040205		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
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CA 2440433	A1	20020919	CA 2002-2440433	20020311
AU 2002254190	A1	20020924	AU 2002-254190	20020311
US 20020197277	A1	20021226	US 2002-96039	20020311

US 7183095	B2	20070227			
EP 1421222	A2	20040526	EP 2002-723409		20020311
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2004537279	T	20041216	JP 2002-571832		20020311
CN 1592794	A	20050309	CN 2002-806237		20020311
PRIORITY APPLN. INFO.:			US 2001-274709P	P	20010309
			WO 2002-US7516	W	20020311

AB The present invention presents a method of synthesizing infectious hepatitis C virus (**HCV**) by transfecting hepatocyte cells with a gene encoding **HCV** and then exposing uninfected cells to the **HCV** to form addnl. **HCV**. The invention relates to a **HCV** cDNA-based culture system capable of synthesis of infectious **HCV** in cell culture and cell-to-cell spread of the virus. The expression of T7 RNA polymerase in the cytoplasm was used to transcribe the **HCV** cDNA under the T7 promoter to generate high quantities of **HCV** RNA. The viral RNA proved to be translated to produce viral structural (core, E1, E2 and p7) and nonstructural (NS2, **NS3**, NS4A and B, NS5A and B) proteins. Viral RNA replication directed by the RNA-dependent RNA polymerase (**NS5B**) would then occur. Progeny virions were made and secreted into the tissue culture media, and infection of neighboring cells resulting in cell-to-cell spread of virus was demonstrated. The invention also relates to a method of measuring the level of **HCV** infection in a hepatocyte cell. A method for identifying a modulator of **HCV** activity is also presented, and a method for modulating **HCV** activity. The invention provides a reliable system for both genetic anal. of the viral genome and for the development of novel antiviral strategies.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Cited References

ACCESSION NUMBER: 2001:319922 CAPLUS
DOCUMENT NUMBER: 134:325205
TITLE: Activation of **HCV**-specific T cells using hepatitis C virus nonstructural proteins, either alone or as fusions
INVENTOR(S): Paliard, Xavier; Houghton, Michael; Selby, Mark
PATENT ASSIGNEE(S): Chiron Corp., USA
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001030812	A2	20010503	WO 2000-US29594	20001027
WO 2001030812	A3	20020228		
WO 2001030812	A9	20020725		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,				

CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2389206	A1	20010503	CA 2000-2389206	20001027
EP 1232267	A2	20020821	EP 2000-973922	20001027
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003512826	T	20030408	JP 2001-533809	20001027
US 6562346	B1	20030513	US 2000-698874	20001027
US 20030170274	A1	20030911	US 2003-357619	20030203
US 7285539	B2	20071023		
US 20040057960	A1	20040325	US 2003-643679	20030818
US 20040191767	A1	20040930	US 2004-822607	20040412
PRIORITY APPLN. INFO.:			US 1999-161713P	P 19991027
			US 2000-698874	A1 20001027
			WO 2000-US29594	W 20001027
			US 2003-357619	A3 20030203

AB The invention provides a method of activating hepatitis C virus (**HCV**)-specific T cells, including CD4+ and CD8+ T cells. **HCV**-specific T cells are activated using fusion proteins comprising **HCV NS3**, **NS4**, NS5a, and **NS5b** polypeptides, polynucleotides encoding such fusion proteins, or polypeptide or polynucleotide compns. contg. the individual components of these fusions. The method can be used in model systems to develop **HCV**-specific immunogenic compns., as well as to immunize a mammal against **HCV**.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Links | References

ACCESSION NUMBER: 1999:113845 CAPLUS
DOCUMENT NUMBER: 130:163166
TITLE: Test vectors containing hepatitis C or human cytomegalovirus nucleic acid and indicator gene and methods for determining antiviral susceptibility and resistance and for antiviral screening
INVENTOR(S): Capon, Daniel J.; Whitcomb, Jeannette M.; Parkin, Neil T.
PATENT ASSIGNEE(S): Virologic, Inc., USA
SOURCE: PCT Int. Appl., 128 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9906597	A1	19990211	WO 1998-US15967	19980730
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2298102	A1	19990211	CA 1998-2298102	19980730
AU 9888976	A	19990222	AU 1998-88976	19980730
EP 1012334	A1	20000628	EP 1998-940779	19980730
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, FI

JP 2001512036	T	20010821	JP 2000-505336		19980730
PRIORITY APPLN. INFO.:			US 1997-903507	A	19970730
			WO 1998-US15967	W	19980730

AB This invention provides a method for detg. susceptibility for an **HCV** or HCMV anti-viral drug comprising: (a) introducing a resistance test vector comprising a patient-derived segment and an indicator gene into a host cell; (b) culturing the host cell from (a); (c) measuring expression of the indicator gene in a target host cell, and (d) comparing the expression of the indicator gene from (c) with the expression of the indicator gene measured when steps (a-c) are carried out in the absence of the anti-viral drug, wherein a test concn. of the anti-viral drug is present at steps (a-c); at steps (b-c); or at step (c). This invention also provides a method for detg. **HCV** or HCMV anti-viral drug resistance in a patient comprising: (a) detg. anti-viral drug susceptibility in the patient at a first time using the susceptibility test described above, wherein the patient-derived segment is obtained from the patient at about said time; (b) detg. anti-viral drug susceptibility of the same patient at a later time; and (c) comparing the anti-viral drug susceptibilities detd. in step (a) and (b), wherein a decrease in anti-viral drug susceptibility at the later time compared to the first time indicates development or progression of anti-viral drug resistance in the patient. This invention also provides a method for evaluating the biol. effectiveness of a candidate **HCV** or HCMV anti-viral drug compd. Compns. including resistance test vectors comprising a patient-derived segment comprising an **HCV** or HCMV gene and an indicator gene and host cells transformed with the resistance test vectors are provided.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L5 IBIB ABS 1-14

L5 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Cited References

ACCESSION NUMBER: 2008:1157516 CAPLUS
DOCUMENT NUMBER: 149:400310
TITLE: Compositions comprising the hepatitis C virus (**HCV**) polyprotein **NS3**/**NS4** and protein **NS5b**, recombinant expression and sequences thereof, and antiviral vaccine uses
INVENTOR(S): Inchauspe, Genevieve; Fournillier, Anne
PATENT ASSIGNEE(S): Transgene SA, Fr.
SOURCE: PCT Int. Appl., 103pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008113606	A1	20080925	WO 2008-EP2300	20080321

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM,

TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

US 20070269460	A1	20071122	US 2007-723638	20070321
PRIORITY APPLN. INFO.:			US 2007-723638	A2 20070321
			FR 2003-6772	A 20030605
			WO 2004-FR50214	W 20040604
			US 2005-559431	A2 20051205

AB The invention relates to the use of a therapeutically effective amt. of a peptide compn. comprising a polyprotein **NS3**/**NS4** of the hepatitis C virus (**HCV**) as well as a polypeptide **NS5b** of the **HCV**, for the prepn. of a medicament for administration to a **HCV**-infected subject in the treatment of hepatitis C. The invention provides a compd. contg. a polyprotein **NS3**/**NS4** and a polypeptide **NS5b** of hepatitis C virus (**HCV**), which has an immunogenic and protective power superior to that obtained with a vaccine addnl. including the protein NS5a and/or other structural proteins of **HCV**. Said invention also relates to expression **vectors**, such as adenovirus and poxvirus **vectors**, encoding the polyprotein **NS3**/**NS4** and the polypeptide **NS5b**. Preclin. studies demonstrate that three sub-cutaneous injections of MVA **vector**-based NS34-**NS5B** construct at one week interval (weeks 1, 2 and 3) represent an optimized protocol to induce **HCV** specific IFNγ producing T cells and cytotoxic T lymphocytes. A recall injection performed several months after the first series (either at month 4 or month 6) was able to enhance both CD4+ and CD8+ T cell responses.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Cited References

ACCESSION NUMBER: 2008:570045 CAPLUS
TITLE: A **vector**-based minigene vaccine approach results in strong induction of T-cell responses specific of hepatitis C virus
AUTHOR(S): Martin, Perrine; Simon, Benjamin; Lone, Yu-Chun; Chatel, Laurence; Barry, Ronald; Inchauspe, Genevieve; Fournillier, Anne
CORPORATE SOURCE: Infectious Diseases Department, TRANSGENE SA, Lyon, 69364, Fr.
SOURCE: Vaccine (2008), 26(20), 2471-2481
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Summary: Multiepitope-based vaccines against hepatitis C virus (**HCV**) were designed in the form of three minigenes encompassing four domains of the **NS3**, **NS4** and **NS5B** proteins that contain multiple class I/II restricted epitopes. The polyEp-WT minigene encodes all four domains in fusion, the polyEp-C minigene encodes the same fusion but optimized for mammalian translation and the polyEp-E3 minigene has an addnl. endoplasmic reticulum targeting sequence. Whereas the minigenes vectorised by DNA were poorly immunogenic, adenovirus vectorization induced strong and broader IFNγ-ELISpot and CTL responses in HLA-A2 transgenic mice. In addn., polyEp-WT and polyEp-E3 responses were found cross-reactive in a recombinant Listeria-**NS3**-based surrogate challenge. This study illustrates the potency of vectorised minigenes in the field of **HCV**

vaccine development.
REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
Full Text | Citing References

ACCESSION NUMBER: 2007:1461700 CAPLUS
DOCUMENT NUMBER: 148:260241
TITLE: The Functional Evaluation of Dendritic Cell Vaccines Based on Different Hepatitis C Virus Nonstructural Genes
AUTHOR(S): Tian, Yuan; Zhang, Heng-Hui; Wei, Lai; Du, Shao-Cai; Chen, Hong-Song; Fei, Ran; Liu, Feng
CORPORATE SOURCE: Hepatology Institute, Peking University People's Hospital, Beijing, Peop. Rep. China
SOURCE: Viral Immunology (2007), 20(4), 553-561
CODEN: VIIMET; ISSN: 0882-8245
PUBLISHER: Mary Ann Liebert, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Hepatitis C virus (**HCV**) nonstructural (NS) genes are relatively conserved and play crit. roles in cellular immune responses against **HCV**. The aim of the study was to evaluate the immunogenicity of the different **HCV** NS genes through transduction of DCs and presentation to T cells. Monocyte-derived DCs from healthy donors were infected with the recombinant adenovirus (Ad) harboring **HCV NS3** (AdNS3), **NS4** (NS4A and NS4B; AdNS4), NS5 (NS5A and **NS5B**; AdNS5), **NS3**/**NS4** (AdNS3/**NS4**), and **NS4**/NS5 (AdNS4/NS5) genes, and then used to stimulate autologous lymphocytes in vitro. Antigen-specific cellular immune responses were detected by interferon-γ (IFN-γ), interleukin 4 (IL-4), and Granzyme B (GrB) enzyme-linked immunospot assays (ELISPOT). DCs expressing different **HCV** NS genes all induced pos. immune responses. Furthermore, DCs transfected with AdNS3/**NS4** were superior to DCs infected with AdNS3 or AdNS4 in inducing **HCV**-specific immunity. The same results were obtained when the authors compared DCs infected with AdNS4/NS5 to AdNS4 or AdNS5. DCs transduced with **NS3**/**NS4** or **NS4**/NS5 had similar ability to elicit specific immune responses to **HCV**.
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
Full Text | Citing References

ACCESSION NUMBER: 2007:1334675 CAPLUS
DOCUMENT NUMBER: 148:9402
TITLE: Compositions comprising the hepatitis C virus (**HCV**) polyprotein **NS3**/**NS4** and protein **NS5b**, recombinant expression and sequences thereof, and vaccine uses
INVENTOR(S): Inchauspe, Genevieve; Fournillier, Anne
PATENT ASSIGNEE(S): Transgene S.A., Fr.
SOURCE: U.S. Pat. Appl. Publ., 75 pp., Cont.-in-part of U.S. Ser. No. 559,431.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070269460	A1	20071122	US 2007-723638	20070321
FR 2855758	A1	20041210	FR 2003-6772	20030605
FR 2855758	B1	20050722		
WO 2004111082	A2	20041223	WO 2004-FR50214	20040604
WO 2004111082	A3	20050217		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 20060134065	A1	20060622	US 2005-559431	20051205
WO 2008113606	A1	20080925	WO 2008-EP2300	20080321

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:			
FR 2003-6772	A	20030605	
WO 2004-FR50214	W	20040604	
US 2005-559431	A2	20051205	
US 2007-723638	A2	20070321	

AB The invention provides a compd. contg. a polyprotein **NS3**/**NS4** and a polypeptide **NS5b** of hepatitis C virus (**HCV**), which has an immunogenic and protective power superior to that obtained with a vaccine addnl. including the protein NS5a and/or other structural proteins of **HCV**. Said invention also relates to expression **vectors**, such as adenovirus and poxvirus **vectors**, encoding the polyprotein **NS3**/**NS4** and the polypeptide **NS5b**. The inventive compd. can be used for a therapeutic application.

L5 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Cited References

ACCESSION NUMBER: 2007:1112932 CAPLUS
DOCUMENT NUMBER: 148:236736
TITLE: An accelerated vaccine schedule with a poly-antigenic hepatitis C virus MVA-based candidate vaccine induces potent, long lasting and in vivo cross-reactive T cell responses
AUTHOR(S): Fournillier, A.; Gerossier, E.; Evlashev, A.; Schmitt, D.; Simon, B.; Chatel, L.; Martin, P.; Silvestre, N.; Balloul, J. M.; Barry, R.; Inchauspe, G.
CORPORATE SOURCE: Site AFSSA, Transgene S.A., Lyon, 69364, Fr.
SOURCE: Vaccine (2007), 25(42), 7339-7353
CODEN: VACCDE; ISSN: 0264-410X

PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We designed and evaluated in HLA-class I transgenic mouse models a hepatitis C virus (**HCV**) T cell-based MVA vectored vaccine expressing three viral antigens known to be targets of potent CD8+- and CD4+-mediated responses. An accelerated (3 wk-based) vaccination induced specific CD8+ T cells harboring two effector functions (cytolytic activity - both in vitro and in vivo - and prodn. of IFNγ) as well as specific CD4+ T cells recognizing all three vaccine antigens. Responses were long lasting (6 mo), boostable by a fourth MVA vaccination and in vivo cross-reactive as demonstrated in a surrogate Listeria-based challenge assay. This candidate vaccine has now moved into clin. trials.
REFERENCE COUNT: 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
Full Text | Citing References
ACCESSION NUMBER: 2006:492228 CAPLUS
DOCUMENT NUMBER: 144:487147
TITLE: Yeast-based therapeutic vaccine vehicle for chronic hepatitis c infection
INVENTOR(S): Duke, Richard C.; Franzusoff, Alex; Haller, Aurelia; King, Thomas H.
PATENT ASSIGNEE(S): Globeimmune, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 47 pp., Cont.-in-part of U.S. Ser. No. 738,646.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20060110755	A1	20060525	US 2005-254252		20051018
US 7439042	B2	20081021			
US 20040156858	A1	20040812	US 2003-738646		20031216
US 7465454	B2	20081216			
US 20080069833	A1	20080320	US 2007-768144		20070625
PRIORITY APPLN. INFO.:			US 2002-434163P	P	20021216
			US 2003-738646	A2	20031216
			US 2004-620158P	P	20041018

OTHER SOURCE(S): MARPAT 144:487147
AB The present invention relates to compns., including vaccines, and methods for vaccinating an animal against hepatitis C virus (**HCV**) and for treating or preventing hepatitis C viral infection in an animal. The invention includes a variety of novel **HCV** fusion proteins that can be used directly as a vaccine or in conjunction with a yeast-based vaccine vehicle to elicit an immune response against **HCV** in an animal. The invention also includes the use of the **HCV** fusion gene and protein described herein in any diagnostic or therapeutic protocol for the detection and/or treatment or prevention of **HCV** infection.

L5 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
Full Text | Citing References
ACCESSION NUMBER: 2006:333454 CAPLUS
DOCUMENT NUMBER: 144:357638

TITLE: Application of a transgenic mouse model of hepatitis c virus (**HCV**) infection and identification of antiviral agent for **HCV** therapeutics
INVENTOR(S): Sallberg, Matti; Frelin, Lars
PATENT ASSIGNEE(S): Tripep AB, Swed.
SOURCE: PCT Int. Appl., 165 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006021896	A2	20060302	WO 2005-IB3736	20050826
WO 2006021896	A3	20060817		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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EP 1781690	A2	20070509	EP 2005-810181	20050826
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
WO 2006109196	A2	20061019	WO 2006-IB1668	20060203
WO 2006109196	A3	20070315		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 20080295185	A1	20081127	US 2008-660878	20080506
PRIORITY APPLN. INFO.:			US 2004-605030P	P 20040827
			US 2005-649975P	P 20050204
			WO 2005-IB3736	W 20050826
			US 2005-740362P	P 20051128

AB Disclosed herein is the discovery of novel **NS3**/4A compns. with enhanced expression abilities. Embodiments of the invention include codon optimized **NS3**/4A compns. and compns. with the Semliki forest virus replicon. Addnl. embodiments include transgenic organisms contg. these **NS3**/4A compns., methods of using these transgenic mice to screen and refine drugs, and the drugs refined by these methods. Addnl. embodiments include protease activity dependent mols. that can indicate the presence or absence of a protease inhibitor.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Cited References

ACCESSION NUMBER: 2005:303181 CAPLUS
DOCUMENT NUMBER: 142:372468
TITLE: **HCV** fusion proteins with modified **NS3** domains and uses thereof as immunogens
INVENTOR(S): Houghton, Michael
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 46 pp., Cont.-in-part of U.S. Ser. No. 721,479.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050074465	A1	20050407	US 2003-612884		20030702
US 6986892	B1	20060117	US 2000-721479		20001122
US 20060057164	A1	20060316	US 2005-195009		20050802
US 7449566	B2	20081111			
JP 2006265267	A	20061005	JP 2006-174595		20060623
PRIORITY APPLN. INFO.:			US 1999-167502P	P	19991124
			US 2000-721479	A2	20001122
			US 2002-393694P	P	20020702
			US 2002-394510P	P	20020708
			JP 2004-519849	A3	20030702

AB The disclosed invention provides hepatitis C virus (**HCV**) fusion proteins that include a mutated **NS3** protease domain, fused to at least one other **HCV** epitope derived from another region of the **HCV** polyprotein. The fusions can be used in stimulation of a cellular immune response to **HCV**, such as activating hepatitis C virus (**HCV**)-specific T cells, including CD4+ and CD8+ T cells. The method can be used in model systems to develop **HCV**-specific immunogenic compns., as well as to immunize a mammal against **HCV**. In expts. with Rhesus macaques, the immunization with plasmid DNA encoding an **NS3**(modified)NS4NS5aCore fusion protein led to activation of **HCV**-specific CD8-pos. T cells expressing interferon γ and proliferation of **HCV**-specific CD4-pos. T cells. Also presented is the use of alphavirus replicon particles.

L5 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Cited References

ACCESSION NUMBER: 2004:905910 CAPLUS
DOCUMENT NUMBER: 141:378844
TITLE: Inducing a T cell response with recombinant antigen-expressing pestivirus replicons or recombinant pestivirus replicon-transfected dendritic cells, and therapeutic uses
INVENTOR(S): Rehermann, Barbara; Racanelli, Vito; Behrens, Sven-Erik; Tautz, Norbert
PATENT ASSIGNEE(S): The Government of the United States of America as Represented by the Secretary of Health and Human Services, USA; Justus-Liebig-Universitaet Giessen
SOURCE: PCT Int. Appl., 143 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004092386	A2	20041028	WO 2004-US11018	20040410
WO 2004092386	A3	20050512		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-462165P P 20030411
US 2003-463097P P 20030414

AB The present disclosure relates to compds. and methods of generating T cell-mediated immunity, particularly T cell-mediated immunity to Hepatitis C Virus (**HCV**), Respiratory Syncytial Virus (RSV), Human Immunodeficiency Virus (HIV), Mycobacterium tuberculosis, Plasmodium falciparum, and tumors. The method includes (a) administering to the subject an amt. of an antigen presenting cell (such as dendritic cell) sufficient to induce the response in the subject, wherein the antigen presenting cell expresses the recombinant antigen from a pestivirus replicon or (b) directly administering the recombinant antigen expressing replicon in form of RNA or DNA.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2002:908392 CAPLUS
DOCUMENT NUMBER: 138:13314
TITLE: Comparative vaccine studies in HLA-A2.1-transgenic mice reveal a clustered organization of epitopes presented in hepatitis C virus natural infection
AUTHOR(S): Himoudi, Nourredine; Abraham, Jean-Daniel; Fournillier, Anne; Lone, Yu Chun; Joubert, Aurelie; Op De Beeck, Anne; Freida, Delphinc; Lemonnier, Francois; Kieny, Marie Paule; Inchauspe, Genevieve
CORPORATE SOURCE: Unite Mixte CNRS-BioMerieux, UMR 2142, Ecole Normale Superieure, Lyon, 69364, Fr.
SOURCE: Journal of Virology (2002), 76(24), 12735-12746
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A polyepitopic CD8+-T-cell response is thought to be crit. for control of hepatitis C virus (**HCV**) infection. Using transgenic mice, we analyzed the immunogenicity and dominance of most known HLA-A2.1 epitopes presented during infection by using vaccines that carry the potential to enter clin. trials: peptides, DNA, and recombinant adenoviruses. The vaccines capacity to induce specific cytotoxic T lymphocytes and interferon gamma-producing cells revealed that immunogenic epitopes are clustered in

specific antigens. For two key antigens, flanking regions were shown to greatly enhance the scope of epitope recognition, whereas a DNA-adenovirus prime-boost vaccination strategy augmented epitope immunogenicity, even that of subdominant ones. The present study reveals a clustered organization of **HCV** immunogenic HLA.A2.1 epitopes and strategies to modulate their dominance.

REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | CASREACT References

ACCESSION NUMBER: 2002:716438 CAPLUS
DOCUMENT NUMBER: 137:227663
TITLE: Hepatitis C virus (**HCV**) cDNA-based hepatocyte cell culture system for synthesis of infectious **HCV**, and uses for antiviral screening
INVENTOR(S): Dasgupta, Asim; Koka, Prasad S.
PATENT ASSIGNEE(S): The Regents of the University of California, USA
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002072776	A2	20020919	WO 2002-US7516	20020311
WO 2002072776	A3	20040205		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2440433	A1	20020919	CA 2002-2440433	20020311
AU 2002254190	A1	20020924	AU 2002-254190	20020311
US 20020197277	A1	20021226	US 2002-96039	20020311
US 7183095	B2	20070227		
EP 1421222	A2	20040526	EP 2002-723409	20020311
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004537279	T	20041216	JP 2002-571832	20020311
CN 1592794	A	20050309	CN 2002-806237	20020311
PRIORITY APPLN. INFO.:			US 2001-274709P P	20010309
			WO 2002-US7516 W	20020311

AB The present invention presents a method of synthesizing infectious hepatitis C virus (**HCV**) by transfecting hepatocyte cells with a gene encoding **HCV** and then exposing uninfected cells to the **HCV** to form addnl. **HCV**. The invention relates to a **HCV** cDNA-based culture system capable of synthesis of infectious **HCV** in cell culture and cell-to-cell spread of the virus. The expression of T7 RNA polymerase in the cytoplasm was used to transcribe the **HCV** cDNA under the T7 promoter to generate high quantities of **HCV** RNA. The viral RNA proved to be translated to produce viral structural (core, E1, E2 and p7) and nonstructural (NS2,

NS3, NS4A and B, NS5A and B) proteins. Viral RNA replication directed by the RNA-dependent RNA polymerase (**NS5B**) would then occur. Progeny virions were made and secreted into the tissue culture media, and infection of neighboring cells resulting in cell-to-cell spread of virus was demonstrated. The invention also relates to a method of measuring the level of **HCV** infection in a hepatocyte cell. A method for identifying a modulator of **HCV** activity is also presented, and a method for modulating **HCV** activity. The invention provides a reliable system for both genetic anal. of the viral genome and for the development of novel antiviral strategies.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1999:113845 CAPLUS
DOCUMENT NUMBER: 130:163166
TITLE: Test **vectors** containing hepatitis C or human cytomegalovirus nucleic acid and indicator gene and methods for determining antiviral susceptibility and resistance and for antiviral screening
INVENTOR(S): Capon, Daniel J.; Whitcomb, Jeannette M.; Parkin, Neil T.
PATENT ASSIGNEE(S): Virologic, Inc., USA
SOURCE: PCT Int. Appl., 128 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9906597	A1	19990211	WO 1998-US15967		19980730
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW					
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
CA 2298102	A1	19990211	CA 1998-2298102		19980730
AU 9888976	A	19990222	AU 1998-88976		19980730
EP 1012334	A1	20000628	EP 1998-940779		19980730
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2001512036	T	20010821	JP 2000-505336		19980730
PRIORITY APPLN. INFO.:			US 1997-903507	A	19970730
			WO 1998-US15967	W	19980730

AB This invention provides a method for detg. susceptibility for an **HCV** or HCMV anti-viral drug comprising: (a) introducing a resistance test **vector** comprising a patient-derived segment and an indicator gene into a host cell; (b) culturing the host cell from (a); (c) measuring expression of the indicator gene in a target host cell, and (d) comparing the expression of the indicator gene from (c) with the expression of the indicator gene measured when steps (a-c) are carried out in the absence of the anti-viral drug, wherein a test concn. of the anti-viral drug is present at steps (a-c); at steps (b-c); or at step (c). This invention

also provides a method for detg. **HCV** or HCMV anti-viral drug resistance in a patient comprising: (a) detg. anti-viral drug susceptibility in the patient at a first time using the susceptibility test described above, wherein the patient-derived segment is obtained from the patient at about said time; (b) detg. anti-viral drug susceptibility of the same patient at a later time; and (c) comparing the anti-viral drug susceptibilities detd. in step (a) and (b), wherein a decrease in anti-viral drug susceptibility at the later time compared to the first time indicates development or progression of anti-viral drug resistance in the patient. This invention also provides a method for evaluating the biol. effectiveness of a candidate **HCV** or HCMV anti-viral drug compd. Compns. including resistance test **vectors** comprising a patient-derived segment comprising an **HCV** or HCMV gene and an indicator gene and host cells transformed with the resistance test **vectors** are provided.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1998:251284 CAPLUS
DOCUMENT NUMBER: 128:292153
ORIGINAL REFERENCE NO.: 128:57803a,57806a
TITLE: Protease regulator screening assay using a recombinant polypeptide comprising anchor, protease recognition, and signal regions
INVENTOR(S): Chien, David Y.; Selby, Mark J.
PATENT ASSIGNEE(S): Chiron Corporation, USA
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9816657	A1	19980423	WO 1997-US18632	19971017
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9749043	A	19980511	AU 1997-49043	19971017
US 6436666	B1	20020820	US 1997-997055	19971017
US 20030113825	A1	20030619	US 2002-225390	20020820
US 6924122	B2	20050802		
US 20060292659	A1	20061228	US 2005-193615	20050801
US 7439040	B2	20081021		

PRIORITY APPLN. INFO.:

US 1996-28817P	P	19961017
US 1997-997055	A1	19971017
WO 1997-US18632	W	19971017
US 2002-225390	A3	20020820

AB A polypeptide contg. an anchor region, a protease recognition site, and a detectable signal region can be produced recombinantly and directly attached to a solid support. The polypeptide is useful for screening protease regulators, esp. protease inhibitors. Thus, a recombinant

protein is produced in which the anchor region is protein A which specifically binds to an antibody, the protease recognition site is that for hepatitis C virus **NS3** protease such as that for NS4A/NS4B or HS4B/NS5A cleavage, and the signal region comprises the epitope FLAG sequence. A fragment encoding **HCV** NS5 peptide protease target site is inserted in frame into the polylinker region of pEZZ18 so that it is connected at the C-terminal region of protein A. The NS5 peptide protease target site includes the NS5A and **NS5B** cleavage site, i.e., amino acids 2420 and 2421, 7 amino acids at the N-terminal side of the cleavage site, and 8 amino acids at the C-terminal side of the cleavage site. Another sequence fragment encoding the FLAG tag is inserted in frame at the C-terminal end of the NS5 protease target site. The sequence fragment encodes three FLAG tags alternately spaced with two 4-glycine spacers. The assay is readily adapted to an automated format and is suitable for large scale drug screens, as demonstrated by screening for potentially therapeutically useful inhibitors of the **HCV** protease.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

Full Text | Links | References

ACCESSION NUMBER: 1997:228414 CAPLUS
DOCUMENT NUMBER: 126:247257
ORIGINAL REFERENCE NO.: 126:47707a,47710a
TITLE: Hepatitis C virus (**HCV**) RNA polymerase assay using cloned **HCV** non-structural proteins
AUTHOR(S): Bartholomeusz, Angeline I.; Guo, Ke-Jian; Edwards, Patrick C.; Locarnini, Stephen A.
CORPORATE SOURCE: Victorian Infectious Diseases Reference Laboratory, Victoria, 3078, Australia
SOURCE: Antiviral Therapy (1996), 1(Suppl. 4, Therapies for Viral Hepatitis), 18-24
CODEN: ANTHFA; ISSN: 1359-6535
PUBLISHER: International Medical Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Investigations into the RNA replication of hepatitis C virus (**HCV**) have been hampered by the lack of a cell-culture system. The objective of this study was to develop an in vitro system to study **HCV** polymerase activity and RNA replication. We are currently developing two **HCV** RNA replication assays. The first reconstitutes the various components required for RNA synthesis: cloned viral non-structural proteins as the source of the viral polymerase and helicase, exts. from uninfected Vero (African green monkey kidney) or HepG2 (human hepatoma) cells as the source of host factors and an RNA template (either **HCV** RNA transcripts or RNA from the pestivirus bovine viral diarrhea virus). The second assay uses **HCV**-infected liver cell exts. and thus contains authentic replication complexes consisting of viral and host proteins and RNA templates. In both assays, synthesis of viral RNA is detected by the incorporation of the radiolabel [α-32P]GTP. In the assay using cloned viral protein, the genes encoding NS2, **NS3**, **NS4**, NS5A and **NS5B** from pBRTM/**HCV** 1-3011 were cloned into the transcription **vector** pT7T3. The transcribed RNA was translated with rabbit reticulocytes in the presence of canine pancreatic membranes. Radiolabeled RNA was detected only in polymerase assays that contained the translated proteins and all other components. In assays using infected liver cell exts., radiolabel was incorporated into RNA products that were not present in control assays using uninfected liver cell exts. Both assays will be useful in the elucidation of processes involved in **HCV** RNA replication

and in the development of antiviral agents.

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-24.60	-24.60

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